VIII. *An Account of an Experiment, concerning the Angle requir'd to ſuſpend a Drop of Oyl of Oranges, at certain Stations, between two Glaſs Planes, placed in the form of a Wedge. By* Mr. Fr. Hauskbee, *F. R. S.*

I Procured two Glaſs Planes that meaſur'd a *Radius* of twenty Inches each; their breadth was about 3 Inches: That which I uſed for the lower Plane, was plac'd with its Surface parallel with the Center of its *Axis*, and parallel with the Horizon. Thus (the Planes being very clean) they were rubb'd with a clean Linnen Cloth dipt in Oyl of Oranges: Then a drop or two of the ſame Oyl being let fall on the lower Plane near the *Axis*, the other Plane was laid on it; which ſo ſoon as it touch'd the Oyl, the Oyl ſpread itſelf conſiderably between both their Surfaces. Then the upper Plane being raiſed a little at the ſame end by a Screw, the Oyl immediately attracted itſelf into a Body, forming a Globule contiguous to both Surfaces, and began to move forwards toward the touching ends. When it had arriv'd two Inches from the *Axis*, an Elevation of 15 Minutes at the touching ends ſtopt its progreſs, and it remain'd there without Motion any way. The Planes being let fall again, the drop mov'd forward till it came to four Inches from the Center; then an Elevation of 25 Minutes was requir'd to give it a fixt Station. At 6 Inches it requir'd an Angle of 35 Minutes; at 8, of 45 Minutes; at 10, a Degree. At 12 Inches from the *Axis*, the Elevation was 1 Degree 45 Minutes; and ſo on, at the ſeveral Stations, as they ſtand in the following Table. This, after

abundance of tryals, I take to be the moſt correct, tho' the others ſucceeded very little different from the ſame. It is to be obſerv'd, that when the Globule, or Drop, had arriv'd to near 17 Inches on the Planes from their *Axis*, it would become of an Oval form; and as it aſcended higher, ſo would its Figure become more and more oblong; and unleſs the Drop was ſmall, upon ſuch an Elevation of the Planes as was requir'd at ſuch a progreſs of the Drop, it would be parted, ſome of it deſcending, and the reſt of it running up to the top at once: But upon a Drop that ſeparated thereabouts, I found the remaining part of it at 18 Inches, would bear an Angle of Elevation equal to 22 Degrees to ballance the weight of it. Higher than that I could not obſerve. The Planes were ſeparated at their *Axis* about $\frac{1}{16}$ of an Inch. I found but little difference between ſmall and larger Drops of the Oyl, in relation to the Experiment. The Angles were meaſured by a Quadrant mark'd on Paper of near 20 Inches *Radius*, divided into Degrees and Quarters.

Diſtance in Inches from the *Axis*.	Angle of Elevation *D.* *M.*
2	0 — 15
4	0 — 25
6	0 — 35
8	0 — 45
10	1 — 00
12	1 — 45
14	2 — 45
15	4 — 00
16	6 — 00
17	10 — 00
18	22 — 00